DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: LYFORD POND		Lake Area (ha):	10.52
Town: CANTERB	URY	Maximum depth (m):	2.7
County: Merrima	ck	Mean depth (m):	1.4
River Basin: Merrima	ck	Volume (m³):	144000
Latitude: 43°23'5		Relative depth:	0.7
Longitude: 71°29'1	2''₩	Shore configuration:	1.26
Elevation (ft):	814	Areal water load (m/yr): 5.84
Shore length (m):	1450	Flushing rate (yr^{-1}) :	4.30
Watershed area (ha):	141.9	P retention coeff.:	0.63
% watershed ponded:	0.0	Lake type: natura	al w/dam

BIOLOGICAL:	14 January 1998	7 July 1997
DOM. PHYTOPLANKTON (% TOTAL) #1	DINOBRYON 70%	UROGLENOPSIS 65%
#2	MALLOMONAS 15%	ANABAENA 15%
#3		MALLOMONAS 7%
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		4.01
DOM. ZOOPLANKTON (% TOTAL) #1	POLYARTHRA 88%	VORTICELLA 58%
#2		NAUPLIUS LARVA 25%
#3		HOLOPEDIUM 12%
ROTIFERS/LITER	28	8
MICROCRUSTACEA/LITER	4	153
ZOOPLANKTON ABUNDANCE (#/L)	32	387
VASCULAR PLANT ABUNDANCE		Common/Abun
SECCHI DISK TRANSPARENCY (m)		2.7 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	6.7	8.1
BACTERIA (E. coli, #/100 ml) #1		2
#2		
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m^3) : None Anoxic volume (m^3) : None

CHEMICAL:			LYFORD PO		
	14 Janua	ary 1998	7 3	July 1997	
DEPTH (m)	1.5		1.0		2.0
pH (units)	5.8		6.7		6.6
A.N.C. (Alkalinity)	6.4		4.6		4.9
NITRATE NITROGEN	0.10		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.30		0.20		0.20
TOTAL PHOSPHORUS	0.013		0.016		0.011
CONDUCTIVITY (µmhos/cm)	40.9		34.0		33.8
APPARENT COLOR (cpu)	16		17		15
MAGNESIUM			0.69		
CALCIUM			1.6		
SODIUM			3.7		
POTASSIUM			0.49		
CHLORIDE	6		5		5
SULFATE	2				
TN : TP	31		13		18
CALCITE SATURATION INDEX			3.7		

All results in mg/L unless indicated otherwise

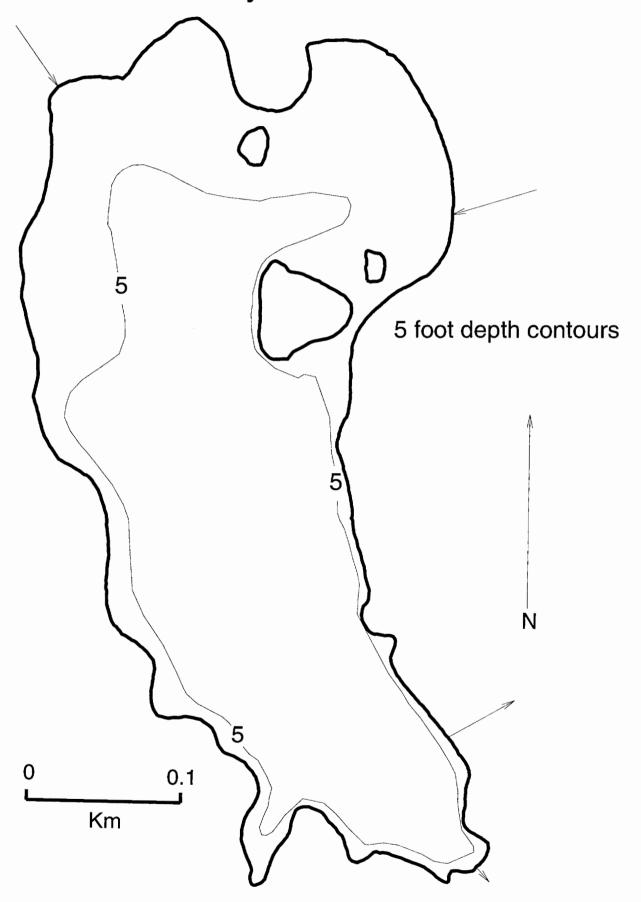
TROPHIC CLASSIFICATION: 1997

D.O.	s.D.	PLANT	CHL	TOTAL	CLASS
**	2	4	1	7	Meso.

COMMENTS:

- Lyford Pond was previously surveyed in 1985. It was classified oligotrophic, but there was little significant change in water quality between the two dates (most of the change in classification was due to the revised classification system). Macrophyte growth was subjectively evaluated as somewhat more abundant in 1997.
- 2. No public access; no motors allowed.
- 3. The blue-green alga Anabaena was the second dominant summer plankton.

Lyford Pond Canterbury



FIELD DATA SHEET

LAKE: LYFORD POND

TOWN: CANTERBURY DATE: 07/07/97 WEATHER: SUNNY & BREEZY

DATE: 07707737	AIL. 07707777 WEATHER. BORNI & BREEZI				
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION		
0.1	25.0	7.8	93 %		
0.5	24.4	7.9	92 %		
1.0	24.1	7.9	92 %		
1.5	24.0	7.8	91 %		
2.0	23.9	7.9	91 %		
2.5	23.9	8.1	94 %		
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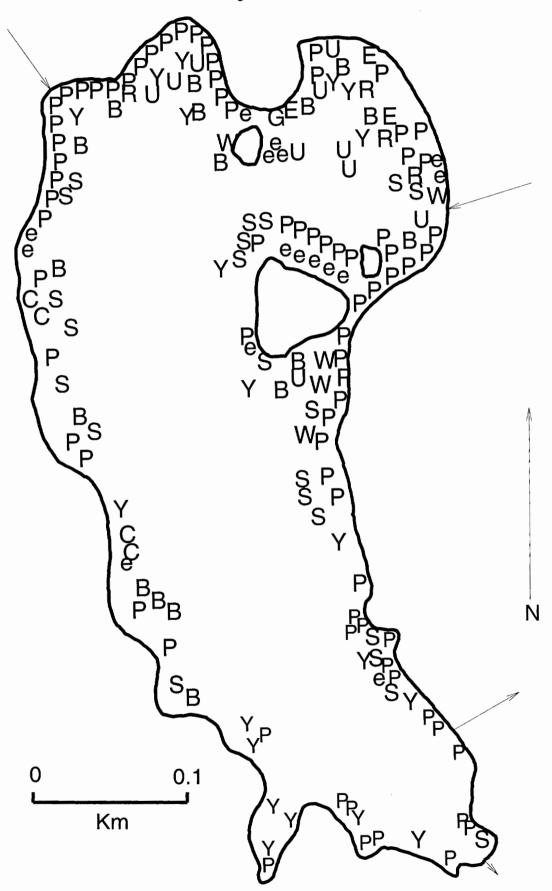
SECCHI DISK (m): 2.7 VOB COMMENTS:

BOTTOM DEPTH (m): 2.7

TIME: 1130

*Dissolved oxygen values are in mg/L

Lyford Pond Canterbury



AQUATIC PLANT SURVEY

LAK	E: LYFORD POND	3	TOWN: CANTERBURY	DATE: 07/07/97
W		PLANT	NAME	ABUNDANCE
Key	GENERIC		COMMON	ABUNDANCE
P	Pontederia cordata		Pickerelweed	Abundant
W	Potamogeton natans		Floating-leaf pondweed	Scat/Common
S	Sparganium		Bur reed	Common
В	Brasenia schreberi		Water shield	Common
Y	Nuphar		Yellow water lily	Scat/Common
U	Utricularia		Bladderwort	Scat/Common
е	Eleocharis		Spike rush	Scattered
E	Eriocaulon septangulare		Pipewort	Sparse
G	Gramineae		Grass family	Sparse
R			Sterile bottom rosette	Scattered
С	Cyperaceae		Non-flowering sedge	Sparse
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OVERALL ABUNDANCE: Common/Abun

GENERAL OBSERVATIONS:

- 1. Plants were very abundant in the northern end and scattered in the southern end.
- 2. Filamentous green algae was observed in the northern coves and the coves at the southern end of the pond but are not listed above or depicted on the map.